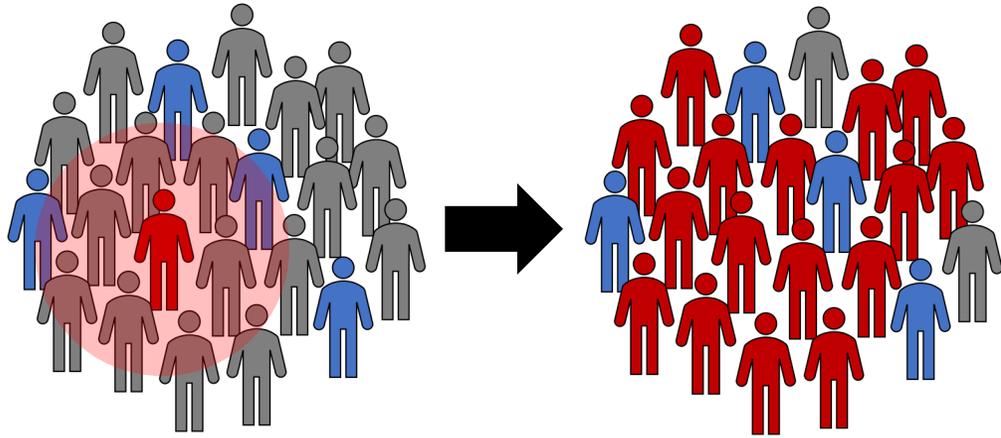
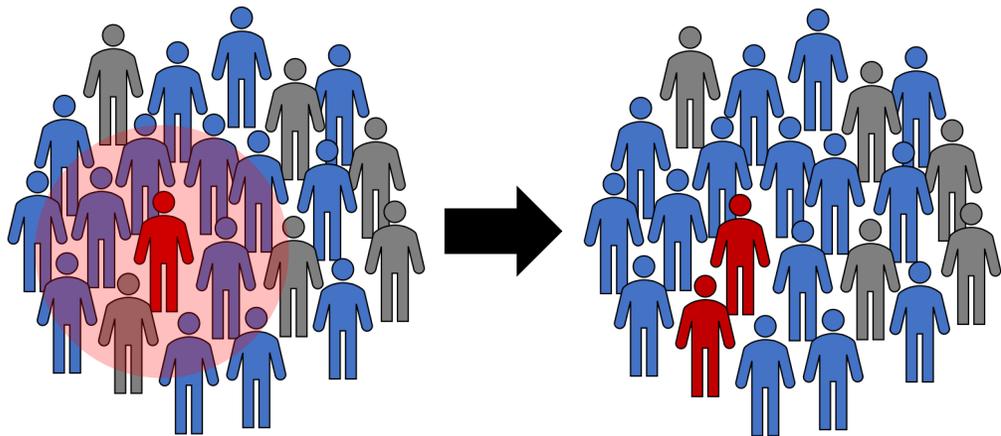


Immunity in the population can reduce disease spread



When immunity in the population is **low, infections can spread**



When immunity in the population is **high, infection spread is contained**

Herd immunity: resistance of a group of people to an attack by a disease when a large proportion of group members are immune.

Herd immunity threshold: if more people than this threshold are completely immune, then the number of new infections tends to decline.

The herd immunity threshold depends on contact network, degree of protection from transmission, etc.

Serology and Seroprevalence

- **Serology testing** checks a blood sample for SARS-CoV-2 antibodies
 - Antibodies usually become detectable 1-3 weeks after infection
 - Positive result may indicate previous infection with SARS-CoV-2
- **Seroprevalence** is the percentage of a population who have antibodies to an infectious agent
- Population immunity is usually measured via cross-sectional surveys of representative samples using serological tests
 - However, seroprevalence survey results may not fully represent actual population immunity

